

### **REMARKS**

New Claims 76-80 have been added. Claim 76 is supported at least by Figure 10(a) of the application as originally filed. Claims 77-78 are supported at least by page 10 lines 20-29 and page 12 lines 4 to 16 of the specification as originally filed. With respect to new Claim 79, intentionally locating a stud at a side edge of a panel helps to support the edge, and also helps to protect the edges against damage during manufacture, transportation and erection of the panels (see the specification at page 11 lines 2-3 and page 12 lines 26-29). New Claim 80 is supported by page 14 line 31 to page 15 line 4, page 15 lines 15-18 and page 16 lines 8-11 of the specification as originally filed.

Claims 60-61, 63, 65, 67-68 and 74-75 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by Loghem et al. (U.S. Patent No. 3,668,460). Claims 60-61, 63, 65 and 67-68 have been similarly rejected by Durbin (U.S. Patent No. 4,254,932), Claims 60-64, 67 and 69-73 have been similarly rejected by Dunn et al. (U.S. Publication No. 2002/0124508), and Claims 60-64 and 67-68 have been similarly rejected by Spera (U.S. Patent No. 5,233,807).

Van Loghem et al. disclose a tee shaped capping or sealing strip with the stem of the tee in the form of a U having inwardly directed barbs on the inner walls thereof which engage with a barbed protruding member disposed within a slot which is to be covered and sealed by the sealing member (see Abstract).

Durbin discloses a concrete wall form including a support structure comprising a beam capable of functioning as a stringer or stiffback and which includes a bolt holding channel. (see Abstract).

Dunn et al. disclose a system for constructing insulated concrete structures comprising panels placed horizontally in an opposing and parallel spaced-apart relationship. Vertical studs are embedded in panels extending the full height of the panels, each stud having a flange and groove connected with a web. Spreaders slide vertically into the grooves of studs in opposing panels creating a form with a cavity between panels. Each spreader has opposing flanges connected by horizontal members, horizontal members having multiple formations, thus when spreaders are stacked the formations compliment each other allowing wall reinforcing to be locked in any preferred location (see Abstract).

Spera discloses a structural beam for concrete formwork. The beam has a front flange and a rear flange disposed in a spaced apart and parallel configuration. A first intermediate web

connects the front and rear flanges. A second web is transversely connected to the first web, so that the two intermediate webs are disposed in a substantially cruciform configuration. A pair of attachment channels is each respectively disposed at the terminal ends of the second intermediate web, the channels extending the entire longitudinal length of the beam. Each of the channels is open in a direction outwardly of the first intermediate web, and each provides an abutment surface which is substantially transversely disposed to the front and rear flanges, of the beam (see Abstract).

With respect to the rejection of Claim 60 by Van Loghem et al., the Examiner has asserted that Van Loghem et al. disclose a stud capable of use in panel form work for solid filled walls, including the particular features recited in claim 1. Van Loghem et al. describes a capping/sealing strip for use in hiding joints between two panels arranged in an end-to-end relationship. The capping/sealing strip is clearly intended for non-structural purposes such as cosmetically concealing a gap or providing a seal against ingress of water or the like. On the other hand, a skilled person would appreciate that the stud as claimed is for use in providing a structural supporting element in panel form work construction. Accordingly, Applicant respectfully submits that the capping/sealing strip of Van Loghem is clearly not "a stud for use in panel form work for solid filled walls" as recited in claim 60.

Furthermore, Applicant submits that the structure disclosed by Van Loghem et al. fails to explicitly show all of the structural limitations of the claims. The Examiner has asserted that Van Loghem et al. shows a head formed as a strip capable of being bonded and/or fastened to an inner face of a panel facing sheet, referring to feature 3 of Figures 1-2 of Van Loghem et al. This relevant disclosure at column 1 lines 56-57 describes this feature as a crescent shaped portion (3) of a cover member (1) of the capping/sealing strip. The "crescent shaped portion" of the cover member of Van Loghem et al., as illustrated in Figures 1-2, forms a convexly curved outer surface which, although suitable for its intended use in capping/sealing an end-to-end panel joint, renders the cover member completely unsuitable for being "bonded and/or fastened to an inner face of a panel facing sheet" as claimed. In response to the assertion of the Examiner, it is respectfully submitted that a skilled person would not even consider bonding and/or fastening the crescent shaped portion of the cover members of the capping/sealing strip to a panel to function as a stud for use in panel form work for solid filled walls.

Nevertheless, in the event that the convexly curved outer surface of the cover member (1) of the capping/sealing strip was bonded and/or fastened to a panel, the crescent shaped portion (3) would need to be deformed into conformance with the flat panel surface during the bonding/fastening process. Such deformation of the crescent shaped portion (3) would result in overall deformation of the shape of the capping/sealing strip, which would tend to move the bifurcated members (4) apart, which would act to subsequently open the recess between the bifurcated members (4) and thus prevent proper engagement of an appropriately dimensioned spacer element in the recess. Accordingly, it is respectfully submitted that the capping/sealing strip structure disclosed by Van Loghem et al. is not capable of performing the intended use of Claim 60.

Despite the above, to assist prosecution, Claim 60 has been amended to further clarify the structural differences between the head as claimed and the structure disclosed by Van Loghem et al. and now recites in relevant part "a head formed as a strip, the head having a relatively broad flat surface adapted to directly abut against and be bonded and/or fastened to an inner face of a panel facing sheet." It is noted that such features incorporated into Claim 60 were previously disclosed in Claim 72 and throughout the specification, and can also be clearly seen in the drawings. Van Loghem et al. does not teach, describe or suggest the particular features of the head as recited in amended Claim 60, and therefore it is respectfully submitted that Claim 60 is novel over the teachings of Van Loghem et al.

With respect to the rejection of Claim 60 by Durbin, Applicant notes that the Examiner does not consider Durbin to anticipate the features of Claims 74 and 75, which were added in the response to the previous Office Action dated April 13, 2009. The recitation of Claim 75 has now been incorporated into Claim 60, which now recites in relevant part "each flange having an out-turned terminal lip to guide passage of the spacer element into the recess, the out-turned terminal lips defining a widening of the recess." As acknowledged by the Examiner, Durbin does not teach, describe or suggest out-turned terminal lips defining a widening of the recess, and therefore it is respectfully submitted that Claim 60 is novel over the teachings of Durbin.

Furthermore, it is submitted that Durbin does not disclose "a head formed as a strip, the head having a relatively broad flat surface adapted to directly abut against and be bonded and/or fastened to an inner face of a panel facing sheet," as called for in amended Claim 60 and discussed above. In the "Response to Arguments" section of the Office Action, the Examiner

remarked that an earlier form of Claim 60 was not specific as to how the head would be bonded and/or fastened to a panel, and therefore the Examiner maintained the rejection of the Claim 60 despite Applicant's submissions that the relevant structural element of Durbin is not "adapted to be bonded and/or fastened to an inner face of a panel facing sheet." Applicant submits that the amendments to Claim 60 in relation to the head now make this particularly clear, and highlight concrete structural differences between the head as claimed and the structural elements disclosed by Durbin which are deemed by the Examiner to be equivalent to the head. Accordingly, it is submitted that the stud of Claim 60 is novel over the disclosure of Durbin for those additional differences.

Despite this, and to help to streamline prosecution, Applicant has also amended Claim 60 to recite in relevant part "a pair of spaced, opposed flanges formed along and extending away from a central portion of the head, the flanges formed integrally with the head such that the flanges and a portion of the head spanning between the flanges define a recess with inwardly directed teeth for engagement of a spacer element." This limitation is supported by the specification as originally filed. For example, see the disclosure at page 12 lines 4-16 and Figures 10(a) to 10(c). Durbin does not teach, describe or suggest the flanges being formed integrally with the head such that a recess is defined by the flanges and a portion of the head spanning between the flanges. Therefore, it is respectfully submitted that this structural difference illustrates an additional point of novelty over the teachings of Durbin.

With respect to the rejection of Claim 60 by Dunn et al., the Examiner acknowledges that Dunn et al. does not show the features of Claims 74 and 75. Claim 60 has been amended to now provide that out-turned terminal lips define a widening of the recess, a limitation formerly called for in Claim 75 and not disclosed by Dunn et al. Nor does Dunn et al. disclose "the flanges formed integrally with the head such that the flanges and a portion of the head spanning between the flanges define a recess," as called for in amended Claim 60. In this regard, and with reference to Figure 3A and paragraph [0071] of Dunn et al., it is clear that the groove (42), which the Examiner has deemed equivalent to the claimed recess, is partially defined by flanges (B, as identified in the Office Action) but is separated from flange (41), considered equivalent to the claimed head, by a web member (43) extending there between. It is clear that the flanges (B) are not formed integrally with the flange (41), nor does a portion of the flange (41) exist between the

flanges (B) that contributes to defining the groove (42). Accordingly, it is submitted that Claim 60 is also at least novel over the teachings of Dunn et al. for these reasons.

With respect to the rejection of Claim 60 by Spera, the Examiner has asserted that Spera shows a stud having features as claimed in Claim 60, with reference to the beam illustrated in Figure 3 of Spera. However Applicant respectfully submits that Spera does not show the particular limitations of Claim 60 as amended, as will be outlined below.

As acknowledged by the Examiner, Spera does not show the features of Claims 74 and 75 relating to the configuration of the out-turned terminal lips. As discussed above, Claim 60 has been amended to now recite "the out-turned terminal lips defining a widening of the recess," a limitation of now cancelled Claim 75, and is now novel over the teachings of Spera.

The Examiner has asserted that the first intermediate web (16) of Spera is equivalent to the claimed head formed as a strip capable of being bonded and/or fastened to an inner face of a panel facing sheet. However, it is respectfully submitted that the cruciform configuration of the intermediate webs would not allow the first intermediate web to be bonded and/or fastened to an inner face of a panel facing sheet. Furthermore, amended Claim 60 now recites additional structural limitations in this regard, requiring that the head has "a relatively broad flat surface adapted to directly abut against and be bonded and/or fastened to an inner face of a panel facing sheet". Applicant respectfully submits that Spera does not disclose that the intermediate web is capable of directly abutting against a panel facing sheet, and it is further submitted that this would not even be possible in light of the cruciform configuration described by Spera. Accordingly, it is submitted that Claim 60 is novel over Spera in light of this additional structural difference.

Moreover, Spera does not show the limitation of the amended Claim 60 of the flanges being "formed integrally with the head such that the flanges and a portion of the head spanning between the flanges define a recess". With reference to Figure 3 of Spera, it is clear that the flanges (274) are not formed integrally with the intermediate web (16). The channel (20), which Examiner has deemed equivalent to the claimed recess, is partially defined by flanges (274), but is separated from the first intermediate web (16), considered equivalent to the claimed head, by a second intermediate web (18) extending there between, such that "a portion of the head spanning between the flanges" does not contribute to defining the recess. Therefore it is submitted that Claim 60 is novel over Spera for these reasons.

Although not yet suggested by the Examiner, Applicant submits that there is not motivation to combine the teachings of Durbin, Dunn et al., Spera and Van Loghem et al. to render the combination of Claim 60 obvious. In this regard, Applicant notes that the disclosures of Durbin, Dunn et al. and Spera each relate to studs/beams for use in panel form work. In contrast, the disclosure of Van Loghem et al. relates to entirely different field of capping/sealing strips for hiding joints between end-to-end panels. It is thus submitted that a skilled person would appreciate that the disclosures of Durbin, Dunn et al. and Spera are clearly directed towards the provision of supporting structural elements for construction applications, whilst the disclosure of Van Loghem et al. is directed to the inherently non-structural purpose of cosmetically hiding a joint or providing a seal against ingress of water or the like. In light of the foregoing, it is submitted that the skilled person would see no teaching, suggestion or motivation to attempt to improve one of the structural studs/beams disclosed by Durbin, Dunn et al. or Spera, by incorporating features from the capping/sealing strip of Van Loghem et al., to arrive at a stud of the type called for in Claim 60. Accordingly, Applicant respectfully submits the particular limitations of Claim 60 would not have been obvious in light of the cited prior art at the time of the invention.

Claims 61-65 and 67-68 and new Claim 76 depend from Claim 60 and are patentable for the same reasons as Claim 60 and by reason of the additional limitations called for therein. For example, new Claim 76 is additionally patentable by providing that "each flange has a base directly connected to the head and each flange extends directly away from the head." None of the disclosures of Durbin, Dunn et al. or Spera show flanges with bases directly connected to the head which extend directly away from the head.

With respect to Claim 69, the Examiner has asserted that Dunn et al. discloses a form work panel for solid filled walls having the limitations recited in claim 69. Applicant has amended Claim 69, in a manner substantially similar to Claim 60, such that the studs used in the form work panel of Claim 69 are substantially similar to the studs of Claim 60. In light of these amendments to Claim 69, it is respectfully submitted that Claim 69 is novel over Dunn et al., and the other cited prior art, for similar reasons as given above with respect to the novelty of Claim 60.

Nevertheless, Applicant submits that limitations with regards to particular features of the form work panel described in Claim 69 provide additional distinctions over the disclosure of

Dunn et al. Specifically, Claim 69 provides "the head having a relatively broad flat surface directly abutting against and bonded and/or fastened to an inner face of the panel facing sheet." In contrast, the panel system disclosed by Dunn et al. involves embedding the studs (40) in the panels (11) (see Abstract). The flanges (41), along with the rest of the cross section of the studs (40) are embedded into the panels (11) by sliding the studs (40) through complementary grooves (17) formed in the panels (11) (see, for example, paragraph [0064]). Therefore, it is clear that Dunn et al. do not disclose "the head having a relatively broad flat surface directly abutting against and bonded and/or fastened to an inner face of the panel facing sheet" as called for in Claim 69. Accordingly, it is respectfully submitted that Claim 69 is novel over the disclosure of Dunn et al. for this additional reason.

Claim 69 is further patentable over Dunn et al. by providing that "each spacer element in a stud assembly having tongues which engage respective recesses in the pair of studs" and "each recess in a stud having teeth formed on the flanges to engage the tongues of the spacer elements". In contrast, and with reference to Figures 4A and 4B of Dunn et al., the spreader (30) of Dunn et al., which the Examiner has deemed to be equivalent to the claimed spacer, does not function in accordance with limitations of Claim 69. In this regard, Paragraph [0070] of Dunn et al. discloses that flanges (31) of the spreader (30) slide into the grooves of the studs (40). A skilled person would appreciate that Dunn et al. do not teach, describe or suggest that tongues of each spacer engage recesses in the pair of studs via teeth formed on the flanges of the stud.

The above mentioned "sliding" of the spreader (30) into the grooves of the studs (40) involves passing the flanges (31) of the spreader (30) along the length of the grooves of the studs (40) from ends of the studs. Applicant notes that the Examiner has asserted that inwardly turned flanges formed on the flanges (31) of studs (which define the grooves) may be interpreted as teeth for the purpose of arguing anticipation of the features of the stud alone as per Claim 60, and that a suitably dimensioned spacer element may "engage" with the inwardly turned flanges. However, in regards to anticipation of the form work panel of Claim 69, it is clear from a fair reading of the disclosure of Dunn et al. that engagement of the spreaders with teeth or any equivalent features on the stud is not explicitly taught, described or even suggested. Accordingly, Applicant respectfully submits that the disclosure of Dunn et al. does not anticipate the form work panel of Claim 69.

Furthermore, and as acknowledged by the Examiner, none of the other cited prior art explicitly shows a form work panel configuration of any particular relevance to the configuration called for in Claim 69. None of such other cited documents teach, describe or suggest a form work panel including a pair of facing sheets and a pair of studs held together by a plurality of spacer elements with tongues which engage recesses in the pair of studs. Of the cited documents that show studs/beams at least intended for use in form work panels, namely the disclosures of Durbin and Spera, these documents do not show studs/beams particularly adapted for use with spacer elements or the like. Instead, the studs/beams respectively described in Durbin and Spera each provide channels for retaining fastening elements such as the head of a bolt, and certainly do not teach of tongues engaging with recesses. Clearly, the disclosures of Durbin and Spera would be of no assistance to a skilled person attempting to improve the form work panel of Dunn et al. to arrive at a form work panel as claimed in Claim 69. Regarding the disclosure of Van Loghem et al., since Loghem et al. is directed towards the entirely different application of capping/sealing a joint gap between two panels in an end-to-end configuration, it is submitted that a skilled person would not see any teaching, suggestion or motivation to consider improving the form work panel of Dunn et al. by incorporating any of the features of the capping/sealing strip of Van Loghem. In light of the foregoing, it is respectfully submitted that Claim 69 is not obvious over the disclosure of Dunn et al. when considered in light of the other cited prior art.

Claims 70-74 and new Claims 77-80 depend from Claim 69 and are patentable for the same reasons as Claim 69 and by reason of the additional limitations called for therein. For example, new Claim 77 is additionally patentable by providing that "the teeth compressively engage an outer surface of the tongues," and new Claim 78 is additionally patentable by providing that "the tongues have a width substantially similar to a width of the recesses, giving an over dimension to the teeth relative to the tongues." In this regard, a skilled person would appreciate that the disclosure of Dunn et al. does not include any compressive engagement of teeth (or any equivalent structural elements) on the flanges (31), nor does it include the teeth (or equivalents) having an over dimension relative to the flanges (31). Accordingly, Applicant respectfully submits that Dunn et al. does not explicitly teach, describe or even suggest either "teeth compressively engaging an outer surface of the tongues" as called for in Claim 77, or "the tongues having a width substantially similar to a width of the recesses, giving an over dimension to the teeth relative to the tongues" as called for in Claim 78. In addition to the foregoing,



Applicant respectfully submits that a skilled person would not have been seen any teaching, suggestion or motivation to improve the disclosure of Dunn et al. by incorporating features of the other cited prior art documents to arrive at either of the particular form work panel configurations defined in Claim 77 or Claim 78. Accordingly, Applicant respectfully submits that Claims 77 and 78 are not obvious over Dunn et al. in light of the cited prior art.

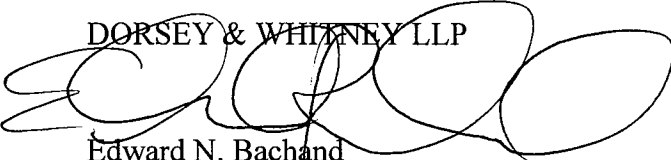
New dependent Claim 79 is additionally patentable by providing "at least one stud is positioned so that the head of the stud extends substantially to a side edge of the respective facing sheet." A skilled person will appreciate that Dunn et al. do not describe positioning a stud with flanges (41), considered equivalent to the head, extending substantially to a side edge of the facing sheet. New dependent Claim 80 is additionally patentable by providing that "the head of the at least one stud is for allowing attachment of at least one of an end element for allowing an end of a panel to be closed, a joiner element for allowing two adjacent panels to be joined together, and a corner element for allowing two angled panels to be joined together." The head of the stud provides a solid and secure substrate to allow an end, joiner or corner element to be attached thereon, which helps to simplify assembly of building panels such that optional panel elements can be firmly and securely fixed to the building panel prior to filling the core of the panel with concrete. Dunn et al. do not teach, describe or suggest using the head for attachment of end, joiner or corner elements. In light of the above, Applicant respectfully submits that Claims 79 and 80 are novel over Dunn et al. Furthermore, none of the cited prior art documents disclose features as recited in Claims 79 and 80, and therefore it is respectfully submitted that Claims 79 and 80 are also non-obvious.

In view of the foregoing, it is respectfully submitted that the claims of record are allowable and that the application should be passed to issue. Should the Examiner believe that the application is not in a condition for allowance and that a telephone interview would help

further prosecution of this case, the Examiner is requested to contact the undersigned attorney at the phone number below.

Respectfully submitted,

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